

**AMENDMENTS TO THE CLAIMS**

Claims 1-10 (canceled)

Claim 11 (currently amended): An optical communications network includes a remote terminal characterized in that said terminal comprises an electro-absorption modulator that

- i) detects an incoming optical signal from a first portion of the optical communications network ~~whilst~~ while simultaneously
- ii) modulating said incoming optical signal, said optical signal being transmitted to a further portion of the optical communications network.

Claim 12 (original): An optical communications network according to claim 11, wherein the optical communications network uses a frequency division multiplexing system.

Claim 13 (canceled)

Claim 14 (currently amended): A bi-directional optical-electrical signal transducer as in ~~claim 13 comprising:~~

an electro-absorption modulator having optical signal input and output ports and an electrical signal input/output port, whereby:

first information-bearing optical signals presented to said optical signal input port produce corresponding first information-bearing electrical signals at said electrical signal input/output port, and

second information-bearing electrical signals presented to said electrical signal input/output port produce corresponding second information bearing optical signals modulated onto an optical signal at said optical signal output port wherein said electro-absorption modulator functions simultaneously and at the same DC operating bias conditions to produce said output optical and electrical signals,

wherein said electro-absorption modulator functions simultaneously and at the same DC operating bias conditions to produce said output optical and electrical signals.

Claims 15 (canceled)